

AMENDMENTS TO THE CLAIMS

Please cancel claims 1-37, and add new claims 38-41.

1-37. (Cancelled)

38. (New) A mobile wireless device comprising:

an amplifier coupled to receive a first signal, the first signal being amplified in the amplifier, and to provide the amplified first signal to an antenna of the wireless device through an output matching network;

a switching voltage regulator circuit having an input terminal coupled to receive a DC voltage provided by a battery, and an output voltage terminal that sources a first variable voltage signal across terminals of a transistor of the amplifier;

a bias voltage generator that generates a second variable DC voltage signal that is provided to an input of the transistor; and

a controller having an input terminal connected to receive a first signal,

wherein the first signal is sampled between the output of the amplifier and the antenna, the controller receives a second signal based on said sampling, the controller provides a third signal to the switching voltage regulator that determines the first variable voltage signal, and the controller provides a fourth signal to the bias voltage generator that determines the second variable voltage signal, the third and fourth signals being dependent on a value of the first signal.

39. (New) The mobile wireless device of claim 38, wherein the first signal is sampled between the output of the amplifier and the output matching network.

40. (New) The mobile wireless device of claim 38, wherein the first signal is sampled between the output matching network and the antenna.

41. (New) A mobile wireless device comprising:  
an amplifier coupled to receive a first signal, the first signal being amplified in the amplifier, and to provide the amplified first signal to an antenna of the wireless device through an output matching network;

a switching voltage regulator circuit having an input terminal coupled to receive a DC voltage provided by a battery, and an output voltage terminal that sources a first variable voltage signal across terminals of a transistor of the amplifier;

a bias circuit that generates a second variable DC voltage signal that is provided to an input of the transistor; and

a controller,

wherein the switching voltage regulator is coupled to an output of the controller, and receives a signal from the controller that determines the first variable voltage signal, the controller determining said signal based on a strength of a signal received by the mobile wireless device from another transmitter, and

wherein the bias circuit is coupled to an output of the controller, and receives a signal from the controller that determines the second variable voltage signal, the controller determining said signal based on the strength of the signal received by the mobile wireless device from the other transmitter.